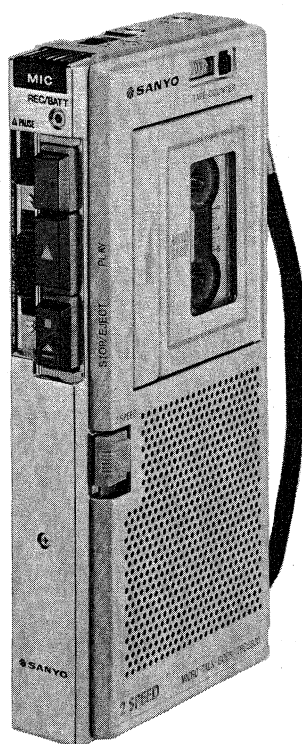


# SERVICE MANUAL

## MICRO TALK-BOOK

**SANYO****TRC5800**

141 897 02

## SPECIFICATIONS

### Power Source

DC . . . . . 3V (UM-3, HP 7, AA Cell, Mignonzellen, R6) x 2

Output Power . . . . . 300mW (maximum)

### Current Consumption (at VR min)

Record mode . . . . . 100mA

Playback mode . . . . . 95mA

Fast Forward mode . . . . . 100mA

Rewind mode . . . . . 110mA

Recording System . . . . . AC Bias

Erasing System . . . . . Magnet Erasing

### Tape Speed

1 . . . . . 15/16ips.  $\pm 3\%$ 2 . . . . . 15/32ips.  $\pm 10\%$ 

Wow &amp; Flutter . . . . . 0.6% (RMS)

Fast Forward Time . . . . . 220sec. (MC-60 cassette)

Rewind Time . . . . . 120sec. (MC-60 cassette)

Frequency Response (Overall)

. . . . . 200 — 7000Hz (15/16ips.)

Erase Ratio (Overall) . . . . . 50dB

Signal to Noise Ratio

. . . . . 40dB

Crosstalk (with Fe<sub>2</sub>O<sub>3</sub>)

Track to Track . . . . . 55dB

Harmonic Distortion (K3) . . . . . 6%

Terminal Impedance

MIC . . . . . 3k-ohm

EXT. Speaker . . . . . 8ohm

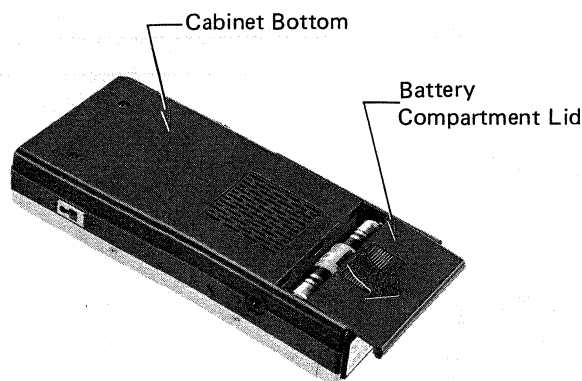
—Specifications subject to change without notice.—

WM4368

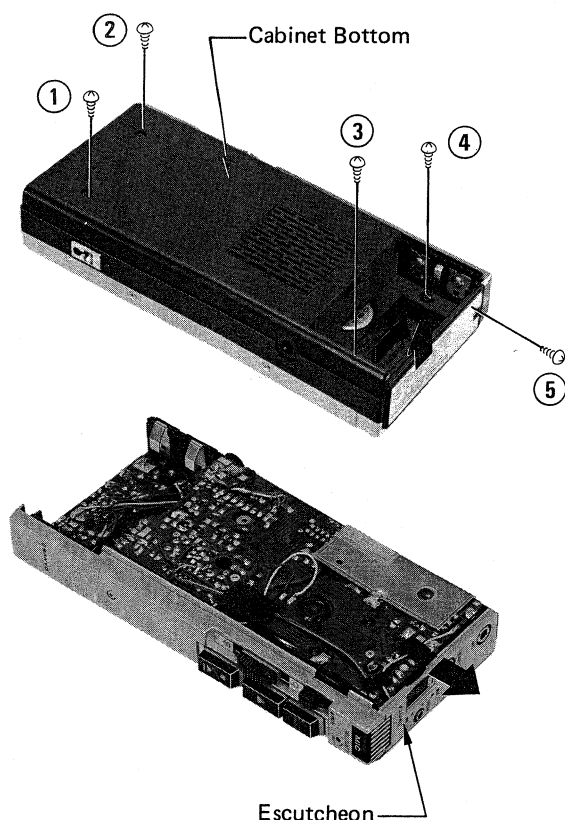
# DISASSEMBLY INSTRUCTIONS

## CABINET BOTTOM REMOVAL

1. Remove the microcassette tape from the compartment by pressing the STOP/EJECT button.
2. Turn over the unit on a clean soft surface and remove the battery compartment lid as illustrated. Then, unload the two dry batteries.



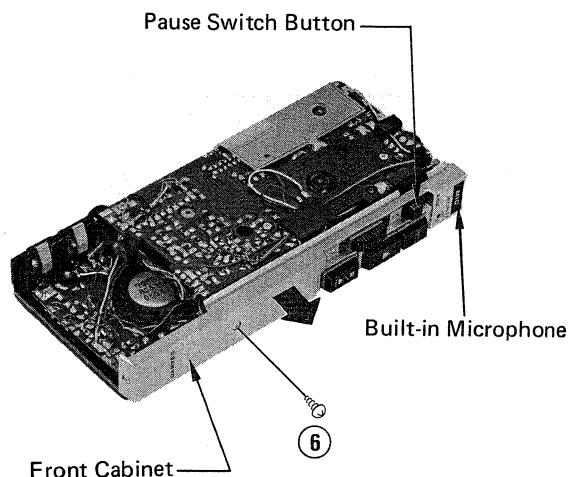
3. Detach the Cabinet Bottom by removing five screws (1 – 5).
4. Remove the Escutcheon by pulling it in the direction of the arrow.



5. Reassemble in reverse order.

## FRONT CABINET REMOVAL

1. Detach the Cabinet Bottom and remove the screw (6) fastening the Front Cabinet.
2. Detach the Front Cabinet by pulling it in the direction of the arrow, noting the leads.



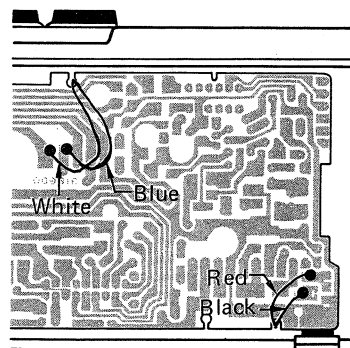
## NOTE

The leads are connected to the built-in microphone and L.E.D. Unsolder the leads from the Amplifier P.C.Board if necessary.

3. Pull out the Pause Switch button from the PAUSE switch if necessary.
4. Reassemble in reverse order.

## FRAME REMOVAL

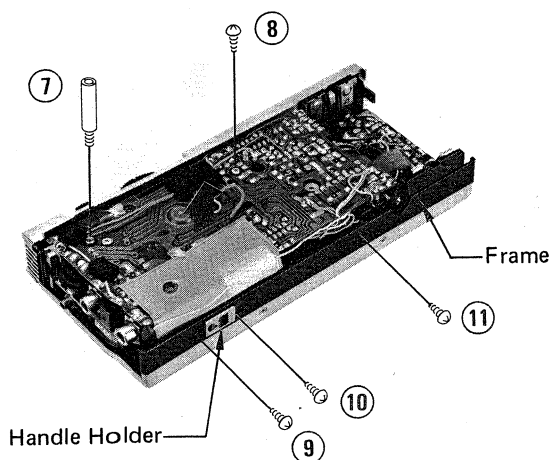
1. Detach the Cabinet Bottom and Front Panel and then, remove the leads indicated in the illustration from the Amplifier P.C.Board.



2. Remove the Post (7) which fastens the Frame to the Mechanism Chassis and four screws (8 – 11) as illustrated.

## DISASSEMBLY INSTRUCTIONS (Continued)

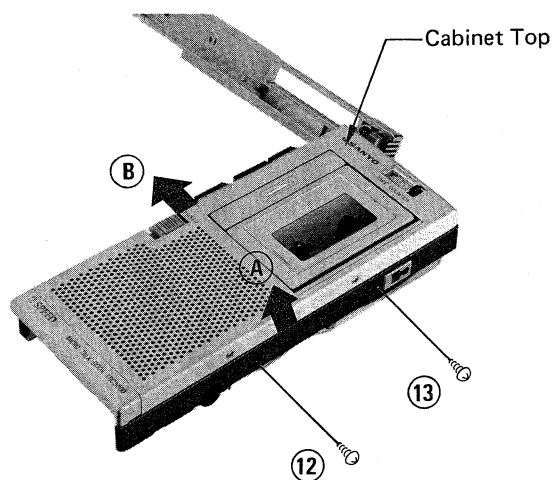
3. Remove the Frame by lifting it in the direction of the arrow as illustrated with the Mechanism Chassis mounted on the P.C.Board. The Handle Holders will be removed together with the Frame.



4. Reassemble in reverse order.

### CABINET TOP REMOVAL

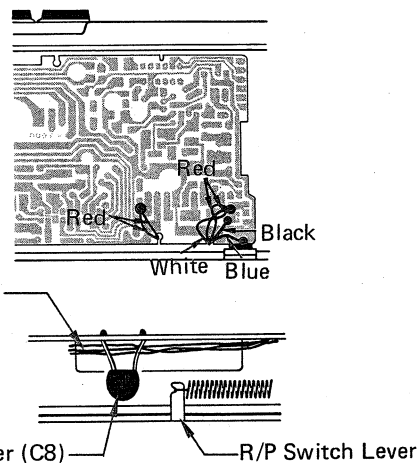
1. Remove the Cabinet Bottom and Front Cabinet, and two screws (12 & 13) fastening the Cabinet Top.
2. Slightly lift the Cabinet Top in the direction of the arrow (A) and slide it in the direction of the arrow (B) to remove it as illustrated.



3. Reassemble in reverse order.

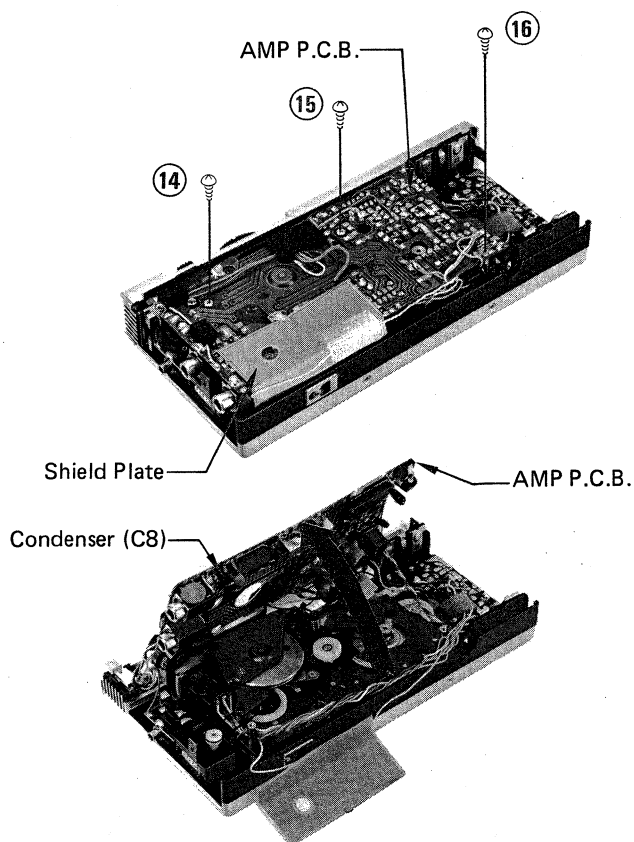
### AMPLIFIER P.C.B. REMOVAL

1. Detach the Cabinet Bottom and Front Cabinet by following the instructions for their removals and unsolder the Shield Plate.
2. Remove the seven leads indicated in the illustration.
3. Pull up Condenser C8 and remove the leads arranged by the Condenser.



4. Remove three screws (14 – 16) fastening the Amplifier P.C.Board, the Pause Switch Button, and the Tape Speed Select Switch.

5. Remove the P.C.B. by lifting it as illustrated.



### NOTE:

- \* After arranging the leads with Condenser C8, bend the legs of the Condenser. Check that the R/P Switch Lever does not touch the Condenser by pressing the RECORD button.
- \* Arrange the yellow lead along the Shield Plate to prevent noise.

6. Reassemble in reverse order.

# MECHANICAL ADJUSTMENTS

## GENERAL REMARKS

1. Before adjusting the mechanism of the unit, wipe the tape contacting surfaces clean as well as the rubber surfaces of the driving parts with a soft cloth soaked in alcohol. Trouble may occur because of oil and grease stains.
2. Use the external power source (Constant-Voltage Regulator, 3.0V DC) whenever a repair or an adjustment work is performed.
3. Keep the belts clean while the adjustments are performed.

## REQUIRED EQUIPMENTS

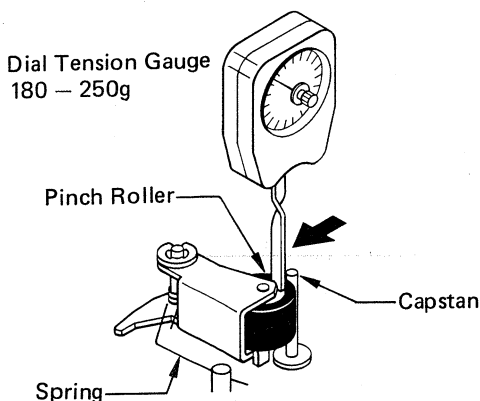
- Microcassette Torque Meter
- Dial Tension Gauge
- Plus Screwdriver (1.7 mm)

### NOTE

Set the Tape Speed Select Switch to "2.4cm" and perform a repair or an adjustment work.

## PINCH ROLLER ADJUSTMENT

1. Check the Pinch Roller. If the rubber surface has scratch marks or is deteriorated, replace it with a new one.
2. Set the unit in the playback mode and measure the pressure with the dial tension gauge by the following procedures:
  - \* Hook the dial tension gauge to the Pinch Roller and pull the Pinch Roller off the Capstan as illustrated. Then, slowly bring the Pinch Roller close to the Capstan.

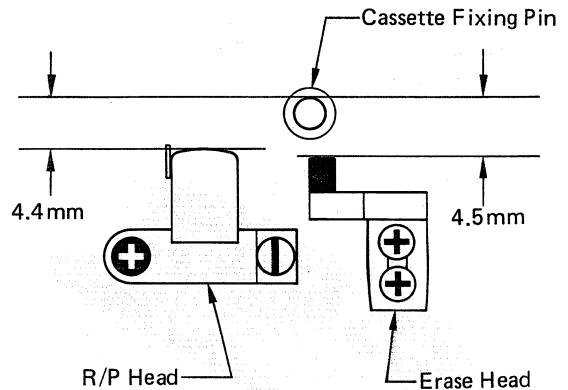


- \* Measure the pressure the moment the Pinch Roller comes in contact with the Capstan and starts rotating. It should be 180 — 250g-cm.
- \* If not, replace the spring with a new one.

## HEAD POSITION ADJUSTMENT

The distance between the cassette fixing pins and each Head should be as follows with the unit in the recording mode.

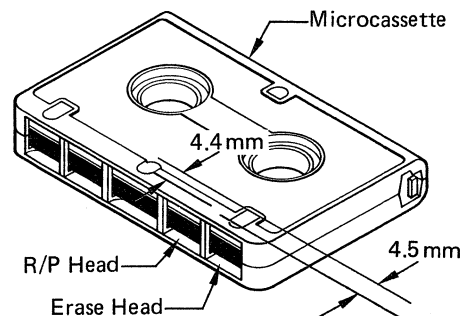
R/P Head	4.4 mm
Erase Head	4.5 mm



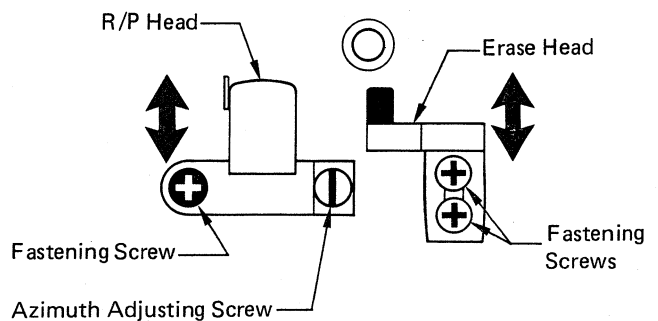
The following adjustment should be performed whenever the Head has been disassembled or replaced.

### NOTE

A cassette with the specified pin-head distances marked on it as shown can be used as a facilitating gauge for the Head Position Adjustment. (Do not use a worn cassette.)



1. Mount the R/P Head on the Slide Base and move the Head to the specified position. Then, tighten the fastening screws.
2. Mount the Erase Head on the Erase Head Base and move the Head to the specified position. Then, tighten the fastening screws.



3. Secure the screws fastening the R/P Head and the Erase Head with paint or glue.

### NOTE:

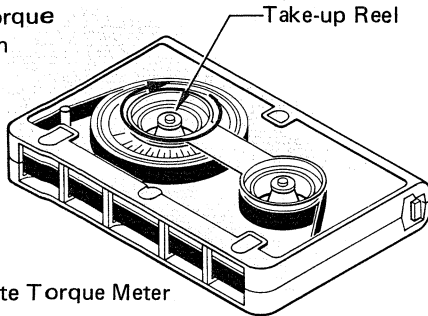
Secure the azimuth adjusting screw with paint or glue after the azimuth adjustment.

## MECHANICAL ADJUSTMENTS (Continued)

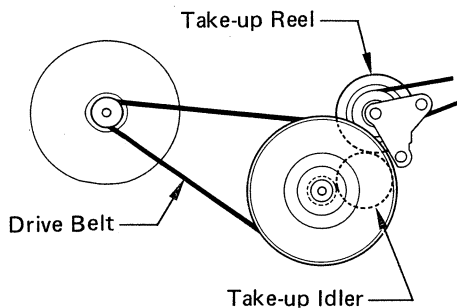
### TAKE-UP TORQUE ADJUSTMENT

1. Insert the microcassette torque meter into the cassette compartment and set the unit in the playback mode. Then, measure the take-up torque of the Take-up Reel. It should be 6 – 11g-cm.

Take-up Torque  
6 – 11g-cm



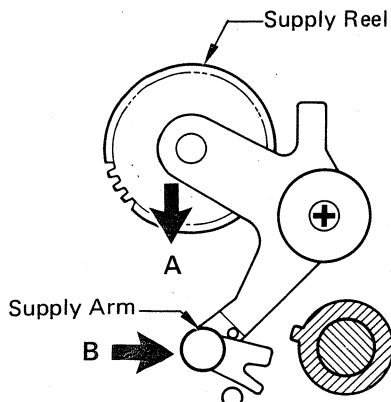
2. If necessary, check the following parts.
  - \* Drive Belt
  - \* Take-up Idler
  - \* Take-up Reel
3. If the above described parts are stained or the rubber is deteriorated, wipe them with a soft cloth soaked in alcohol or replace them with new ones.



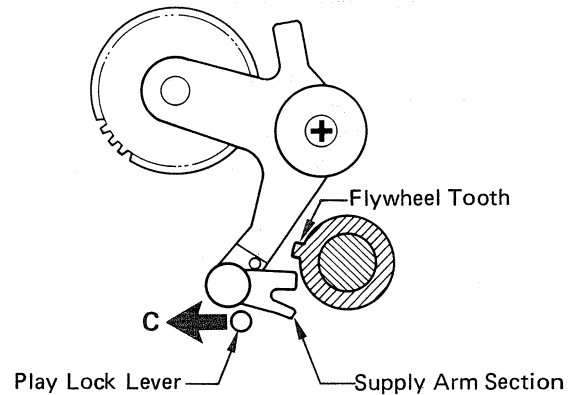
### AUTO-SHUT OFF MECHANISM

#### FUNCTION

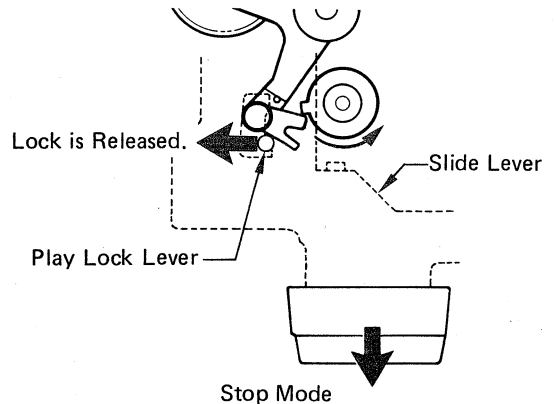
1. When the tape has reached its end with the unit in the recording or playback mode, the tape moves the Supply Reel in the direction of the arrow A and the Supply Arm moves in the direction of the arrow B.



2. Because the Flywheel continues rotating, the tooth of the Flywheel pushes the section of the Supply Arm, so that the Play Lock Lever moves in the direction of the arrow C.



3. The Slide Lever, which has been locked by the Play Lock Lever, is released and sets the unit in the stop mode.



### NOTES ON UNIT ASSEMBLY

1. Solder the removed leads again and arrange them as before.
2. Assemble the unit referring to the Schematic Diagram and the Exploded Views.

# ELECTRICAL ADJUSTMENTS

## REQUIRED EQUIPMENTS

- VTVM
- Frequency Counter
- DC Constant-Voltage Regulator
- Dummy Load (8ohm)
- Test Tapes
  - \* 3kHz test tape (Example: Olympus 3K09) for Tape Speed Adjustment
  - \* 3kHz test tape (Example: Olympus A09) for Head Azimuth Adjustment
- Alignment Bar

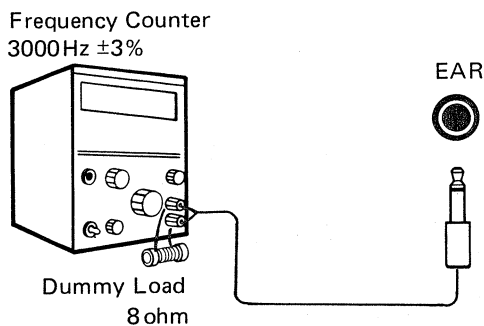
### NOTE

1. Supply 3.0V DC from the constant-voltage regulator at the adjustments.
2. Unless otherwise specified, set the Tape Speed Select Switch to "2.4cm".

## TAPE SPEED ADJUSTMENT

### 2.4cm/second Adjustment

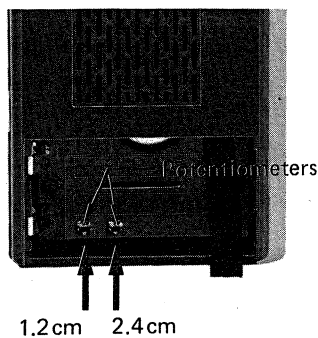
1. Set the Tape Speed Select Switch to "2.4cm" and remove the battery compartment lid.
2. Connect the frequency counter to the earphone jack as illustrated and insert the 3 kHz test tape (Example: Olympus 3K09) into the cassette compartment.



3. Turn the potentiometer (P3) in the Governor P.C.Board until the frequency counter reads 3000Hz $\pm 3\%$  with the unit in the playback mode.

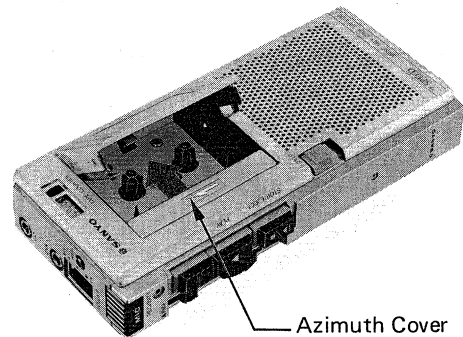
### 1.2cm/second Adjustment

4. Set the Tape Speed Select Switch to "1.2cm" and play back the test tape with the above-described method.
5. Turn the potentiometer (P302) in the Governor P.C.Board until the frequency counter reads 1500Hz $\pm 10\%$ .

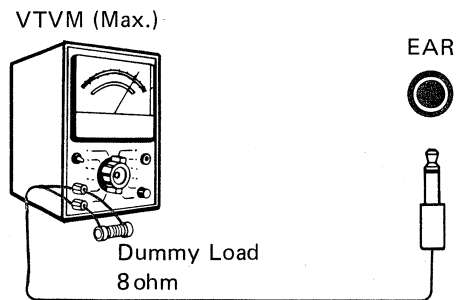


## HEAD AZIMUTH ADJUSTMENT

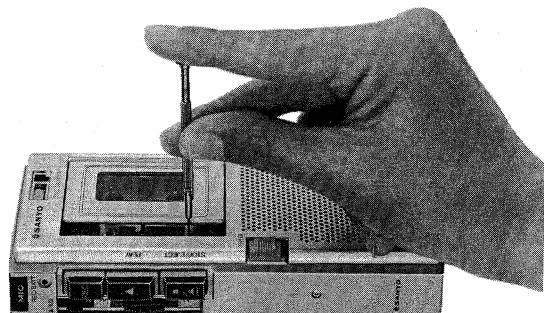
1. Remove the Azimuth Cover as illustrated and insert the 3kHz test tape (Example: Olympus A09) into the cassette compartment.



2. Connect the VTVM to the earphone jack as illustrated and turn the azimuth adjusting screw until the VTVM reads maximum with the unit in the playback mode.



### Adjustment



3. After the adjustment, secure the azimuth adjusting screw with paint or glue.

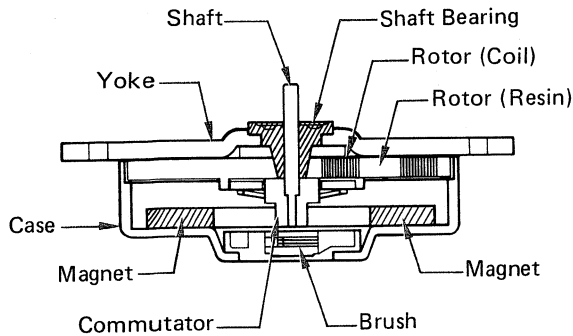
## ELECTRICAL ADJUSTMENTS (Continued)

### CORELESS MOTOR

The productivity of the motor used for the conventional tape recorders is very high and the large torque is obtained although the motor is very small and inexpensive. However the irregular rotation and vibration are sometimes caused because of the variation of the magnetic resistance and Wow & Flutter increase. It also has some difficulties to use the motor for a microcassette recorder.

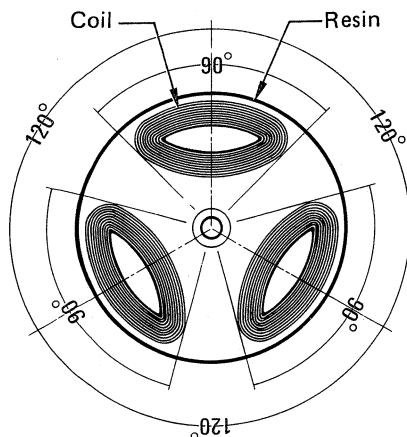
The coreless motor used in this Model has no core in the rotor as the name shows. Only the coils are molded with resin, arranged, and used as a rotor. The functional principle of the coreless motor will be explained according to the principle of "Left-hand Rule" which has been applied to the conventional motors.

Therefore, the vibration which the motor itself causes and the characteristics of Wow & Flutter are improved. The coreless motor will be well applied to the microcassette tape recorders. But the production cost will be increased because magnet components such as samarium (Sm) and cobalt (Co) are used to increase torque.



The rotor of the motor has three coils whose angles are  $90^\circ$  and the coils are arranged at the angle of  $120^\circ$  and molded with resin. The rotor consists of coils and resin. The characteristics are as follows:

- \* Light Weight
- \* Low Inertia
- \* No irregular rotations  
(No magnetic resistance)



# PARTS LIST

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
<b>PACKAGE</b>				<b>AMPLIFIER P.C.B. ASSY</b>			
	141 6 1419 43202	Individual Carton	1	D2	4 2029 70160	Diode, 1S953	1
	141 6 1449 60400	Styrofoam Case	1	IC1	4 2069 70660	IC, CX-182	1
	141 6 2519 08015	Poly Cover	1	IC2	4 2069 70650	IC, CX-184	1
	141 6 2519 11190	Poly Cover	1	Q1	4 2039 70610	Transistor, 2SC2458	1
<b>ACCESSORIES</b>				Q2	4 2039 70610	Transistor, 2SC2458	1
	4 1529 70013	Earphone	1	T1	4 2589 71520	OSC Transformer	1
	4 1919 71131	AC Adaptor	1	T2	4 2559 70111	Step-up Transformer	1
	4 2419 72301	Micro Cassette	1	VR1	4 2229 71910	Volume Control (A-10k)	1
	141 0 2719 00300	Hand Strap Assy	1	S1	4 2319 73641	Slide Switch (Record/Play Switch)	1
	141 2 1819 10200	Carrying Case	1	S2	4 2319 73790	Slide Switch (Tape Speed)	1
	141 6 4119 90200	Instruction Manual	1	S3	4 2319 73481	Slide Switch (Pause)	1
<b>CABINET</b>				J1	4 2359 73470	Jack 1P (Microphone)	1
	4 1519 70820	Speaker (8 ohm)	1	J2	4 2359 73470	Jack 1P (Earphone)	1
	4 1539 70621	Microphone	1	J4	4 2359 74320	Ext. Power Socket	1
	141 0 1119 61402	Cabinet Top Assy	1	<b>CHIP P.C.B. ASSY</b>			
	141 0 1119 61500	Cabinet Front Assy (with D1)	1		4 2269 32110	Chip P.C.B. Assy	1
	141 0 1119 61702	Cabinet Bottom Complete	1	C1	CG3 3 3250 MH00A	CG 0.033 $\mu$ F 25V $\pm$ 20%	1
	141 0 1149 06701	Frame Assy	1	C5	CG2 2 2500 MH00A	CG 0.0022 $\mu$ F 50V $\pm$ 20%	1
	141 0 1219 03900	Escutcheon Assy	1	C10	CG3 3 2500 MH00A	CG 0.0033 $\mu$ F 50V $\pm$ 20%	1
	141 0 2419 00101	Azimuth Cover Assy	1	C13	CG1 0 2500 KH00A	CG 0.001 $\mu$ F 50V $\pm$ 10%	1
	141 0 2719 00400	Handle Holder Assy	1	C15	CG4 7 3500 ZI00A	CG 0.047 $\mu$ F 50V $\pm$ 20%	1
	141 2 1249 20901	Cassette Lid	1	C16	CG4 7 3500 ZI00A	CG 0.047 $\mu$ F 50V $\pm$ 20%	1
	141 2 1319 15600	Clear Window	1	C22	CG2 2 2500 MH00A	CG 0.0022 $\mu$ F 50V $\pm$ 20%	1
	141 2 1339 21000	Battery Lid	1	C23	CG1 5 3500 ZI00A	CG 0.015 $\mu$ F 50V $\pm$ 20%	1
	141 2 1519 24600	Cap, Microphone	1	C24	CG3 3 2500 MH00A	CG 0.0033 $\mu$ F 50V $\pm$ 20%	1
	141 2 1619 62000	Pause Button	1	C27	CG3 3 3250 MH00A	CG 0.033 $\mu$ F 25V $\pm$ 20%	1
	141 2 1649 12800	Switch Knob	1		RG0 0 0121 JA000	RG 0 ohm 1/8W $\pm$ 5%	1
	141 2 3899 09600	Microphone Holder	1	R2	RG3 3 2121 JA000	RG 3.3k ohm 1/8W $\pm$ 5%	1
	141 2 4119 01200	Nut Plate	1	R3	RG2 7 2121 JA000	RG 2.7k ohm 1/8W $\pm$ 5%	1
	141 2 4219 10501	Screw	2	R4	RG5 6 3121 JA000	RG 56k ohm 1/8W $\pm$ 5%	1
	141 2 4219 10601	Screw	5	R5	RG1 8 3121 JA000	RG 18k ohm 1/8W $\pm$ 5%	1
	141 2 4219 10602	Screw	1	R6	RG1 5 3121 JA000	RG 15k ohm 1/8W $\pm$ 5%	1
	141 2 4219 15401	Screw	2	R7	RG2 2 3121 JA000	RG 22k ohm 1/8W $\pm$ 5%	1
	141 2 4219 18601	Screw	2	R8	RG3 3 3121 JA000	RG 33k ohm 1/8W $\pm$ 5%	1
	141 2 4469 14500	Cushion	1	R9	RG1 8 3121 JA000	RG 18k ohm 1/8W $\pm$ 5%	1
	141 2 4469 29700	Cushion	1	R10	RG4 7 2121 JA000	RG 4.7k ohm 1/8W $\pm$ 5%	1
	141 2 4469 32200	Sheet	1	R11	RG4 7 1121 JA000	RG 470 ohm 1/8W $\pm$ 5%	1
	141 2 8539 34500	Spring, Cassette	1	R12	RG2 2 0121 KA000	RG 22 ohm 1/8W $\pm$ 10%	1
	141 2 3229 26700	Shield Plate	1	R13	RG1 0 2121 JA000	RG 1k ohm 1/8W $\pm$ 5%	1
	141 2 4219 10500	Screw	3	R14	RG4 7 3121 JA000	RG 47k ohm 1/8W $\pm$ 5%	1
	141 2 4469 17201	Cushion	1	R15	RG5 6 2121 JA000	RG 56k ohm 1/8W $\pm$ 5%	1
	141 2 4469 23201	Cushion	2	R16	RG2 7 2121 JA000	RG 2.7k ohm 1/8W $\pm$ 5%	1
	110 3 2101 70013	Spring Washer-2	1	R17	RG1 0 1121 JA000	RG 100 ohm 1/8W $\pm$ 5%	1
				R18	RG1 0 3121 JA000	RG 10k ohm 1/8W $\pm$ 5%	1
<b>AMPLIFIER P.C.B. ASSY</b>				R19	RG5 6 3121 JA000	RG 56k ohm 1/8W $\pm$ 5%	1
	4 1329 74900	Amplifier P.C.B. Assy	1	R20	RG1 5 0121 KA000	RG 15 ohm 1/8W $\pm$ 10%	1
	4 2269 32110	Chip P.C.B. Assy	1	R21	RG4 7 1121 JA000	RG 470 ohm 1/8W $\pm$ 5%	1
	141 2 3659 14700	Switch Holder	1	R22	RG3 3 3121 JA000	RG 33k ohm 1/8W $\pm$ 5%	1
	141 2 1639 31800	Control Knob	1	R23	RG1 8 1121 JA000	RG 180 ohm 1/8W $\pm$ 5%	1
	141 2 4219 08900	Screw	1	R24	RG2 7 2121 JA000	RG 2.7k ohm 1/8W $\pm$ 5%	1
C2	CI3 3 3250 KF00C	Boundary 0.033 $\mu$ F 25V $\pm$ 10%	1	R25	RG1 0 5121 JA000	RG 1M ohm 1/8W $\pm$ 5%	1
C3	CD1 0 7100 0001V	Electrolytic 100 $\mu$ F 10V	1	R26	RG1 8 3121 JA000	RG 18k ohm 1/8W $\pm$ 5%	1
C4	CT1 0 5100 M00SV	Tantalum 1 $\mu$ F 10V $\pm$ 20%	1	R27	RG1 0 0121 KA000	RG 10 ohm 1/8W $\pm$ 10%	1
C6	CT1 0 630A M00DV	Tantalum 10 $\mu$ F 3V $\pm$ 20%	1	R28	RG5 6 0121 KA000	RG 56 ohm 1/8W $\pm$ 10%	1
C7	CT1 0 5100 M00SV	Tantalum 1 $\mu$ F 10V $\pm$ 20%	1	R29	RS5 6 1620 KT000	Micro 560 ohm 1/16W $\pm$ 10%	1
C8	CI1 2 2250 KE00C	Boundary 0.0012 $\mu$ F 25V $\pm$ 10%	1	R30	RG2 2 4121 JA000	RG 220k ohm 1/8W $\pm$ 5%	1
C9	CT1 0 5100 M00SV	Tantalum 1 $\mu$ F 10V $\pm$ 20%	1	R31	RG6 8 4121 JA000	RG 680k ohm 1/8W $\pm$ 5%	1
C11	CT2 2 630A M00DV	Tantalum 22 $\mu$ F 3V $\pm$ 20%	1	<b>JACK P.C.B. ASSY</b>			
C12	CT1 5 4350 M00DV	Tantalum 0.15 $\mu$ F 35V $\pm$ 20%	1	J3	4 2359 74730	Jack P.C.B. Assy (Remote)	1
C14	CT1 5 4350 M00DV	Tantalum 0.15 $\mu$ F 35V $\pm$ 20%	1		141 0 2919 00100	Mechanism Complete	1
C17	CT4 7 563A M00DV	Tantalum 4.7 $\mu$ F 6.3V $\pm$ 20%	1	S4	4 2319 73920	F.F. Rewind Switch Assy	1
C18	CT3 3 630A M00DV	Tantalum 33 $\mu$ F 3V $\pm$ 20%	1	S5	4 2319 73940	Power Switch Assy	1
C19	CD1 0 7100 0001V	Electrolytic 100 $\mu$ F 10V	1	HD1	4 2429 71560	R/P Head Assy	1
C20	CT1 0 630A M00DV	Tantalum 10 $\mu$ F 3V $\pm$ 20%	1	HD2	4 2429 71540	Erase Head	1
C21	CT1 0 5100 M00SV	Tantalum 1 $\mu$ F 10V $\pm$ 20%	1		4 2869 70430	Governor P.C.B. Assy	1
C25	CM3 9 2101 K00SV	Mylar 0.0039 $\mu$ F 100V $\pm$ 10%	1		4 5279 70990	Motor	1
C26	CT3 3 630A M00DV	Tantalum 33 $\mu$ F 3V $\pm$ 20%	1		112 3 1301 50082	E Ring	9
					112 3 1302 00082	E Ring	2



## PARTS LIST (Continued)

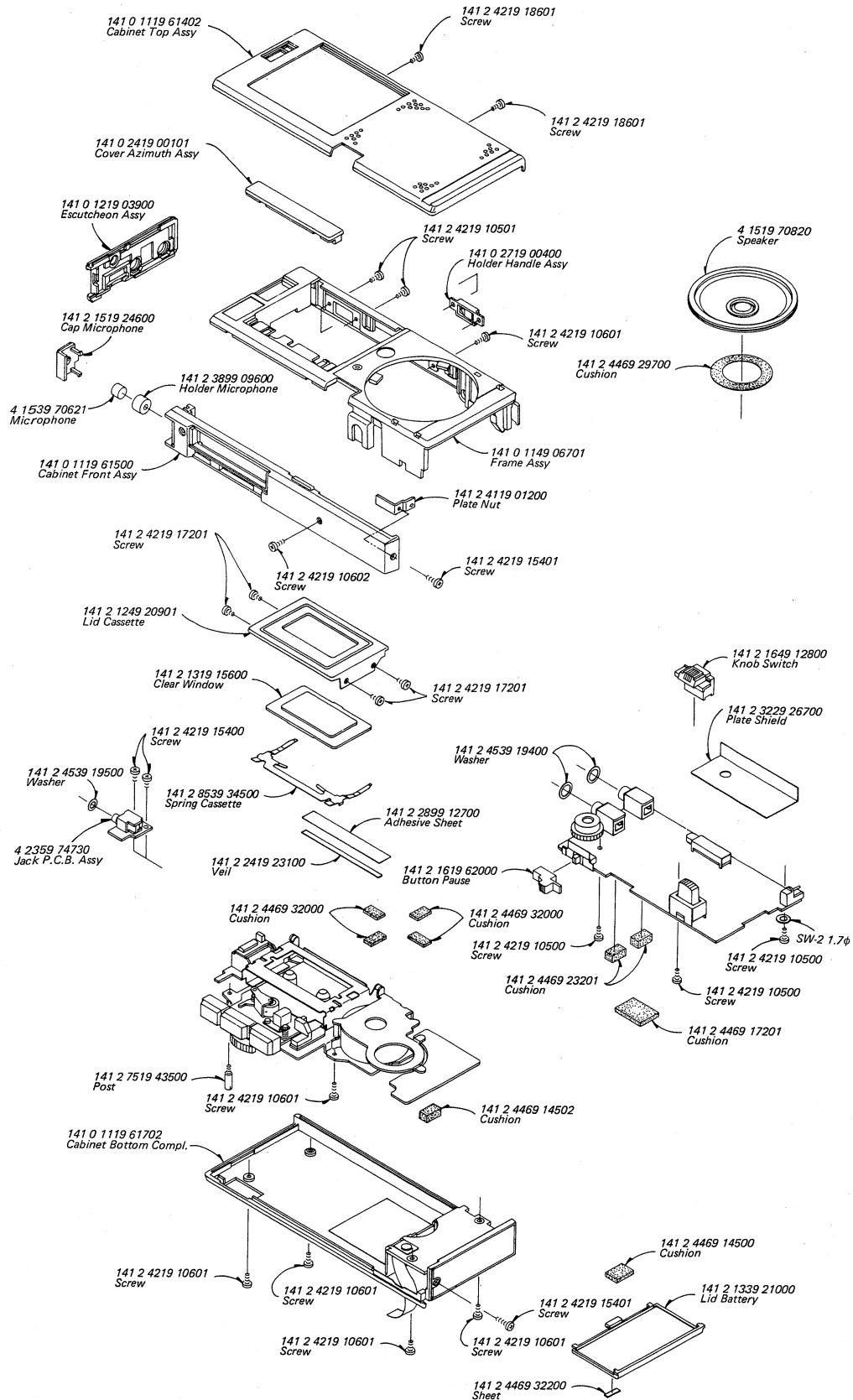
Ref. No.	Part No.	Description	Q'ty
<b>MECHANISM</b>			
	141 0 1249 15300	Cassette Support Assy	1
	141 0 31 19 17700	Chassis Assy	1
	141 0 35 19 17800	Flywheel Support Assy	1
	141 0 52 19 06300	Flywheel Assy	1
	141 0 53 19 04900	Take-up Reel Assy	1
	141 0 53 69 01200	Reel Bracket Assy	1
	141 0 53 69 01300	Supply Arm Assy	1
	141 0 54 19 02800	Pinch Roller Assy	1
	141 0 55 59 05600	Rewind Arm Gear Assy	1
	141 0 73 19 20100	Slide Base Assy	1
	141 0 74 19 23800	Stop Lever Assy	1
	141 0 74 19 24000	Record Lever Assy	1
	141 0 74 19 24100	F.F. Rewind Lever Assy	1
	141 0 74 19 24200	Play Lock Lever Assy	1
	141 0 74 39 07600	Click Arm Assy	1
	141 2 12 19 13400	Chassis Panel	1
	141 2 35 19 47600	Bracket Holder	1
	141 2 35 19 47700	Motor Bracket Assy	1
	141 2 35 29 25000	Record Crank Collar	1
	141 2 35 29 25200	Supply Arm Collar	1
	141 2 35 29 25300	Collar	1
	141 2 35 29 25400	Collar	1
	141 2 35 29 25500	Collar	1
	141 2 35 29 25700	Collar Lock Lever	1
	141 2 37 69 09300	Spacer, Erase Head	1
	141 2 42 19 18800	Screw, Azimuth	1
	141 2 42 19 19300	Screw, Flat Hd. Tapping-1 +M1.4x1.6	3
	141 2 42 19 19400	Screw, Pan Hd. Tapping-3 +M1.4x5	2
	141 2 42 19 19500	Screw, Pan Hd. Tapping-1 +M1.7x1.8	2
	141 2 42 19 19600	Screw, Pan Hd. Tapping-2 +M1.7x2.0	11
	141 2 42 19 19700	Screw, Pan Hd. Tapping-3 +M1.7x2.5	3
	141 2 42 19 19800	Screw, Pan Hd. Tapping-1 +M1.7x3.0	6
	141 2 42 19 19900	Screw, Pan Hd. Tapping-1 +M1.7x4.0	1
	141 2 42 19 20100	Screw, Pan Hd. Tapping-3 +M1.7x4.0	1
	141 2 42 19 20200	Screw, Pan Hd. Tapping-1 +M1.7x3.5	1
	141 2 44 59 23300	Motor Cushion	1
	141 2 45 39 18700	Washer	1
	141 2 45 39 18800	Washer	3
	141 2 45 39 18900	Washer	2
	141 2 45 39 19000	Washer Lock	4
	141 2 47 29 06300	Lug	1
	141 2 47 29 06400	Lug	1
	141 2 53 19 08700	Supply Reel	1
	141 2 55 19 33200	Take-up Idler	1
	141 2 55 19 33300	Rewind Gear	1
	141 2 56 49 14000	Belt Counter	1
	141 2 56 49 14100	Drive Belt	1
	141 2 66 19 02700	Rewind Pulley	1
	141 2 73 19 39400	Erase Head Base	1
	141 2 74 19 62200	Eject Lever	1
	141 2 74 39 17700	Record Crank	1
	141 2 81 19 07500	Counter	1
	141 2 81 39 05200	Counter Bracket	1
	141 2 82 19 27100	Tape Guide	1
	141 2 84 19 09800	R/P Actuating Switch Lever	1
	141 2 85 19 85800	Spring, Azimuth	1
	141 2 85 19 86000	Spring, Record Lock	1
	141 2 85 19 86100	Spring, Record Lever	1
	141 2 85 19 86200	Spring, Pinch Roller	1
	141 2 85 19 86300	Spring, R/P Switch Lever	1
	141 2 85 19 86400	Spring, Rewind Lever	1
	141 2 85 19 86500	Spring, Slide Base Lock	1
	141 2 85 19 86600	Spring, Supply Arm	1
	141 2 85 19 86700	Spring, Interlock	1
	141 2 85 19 86800	Spring, Take-up Idler	1
	141 2 85 19 86900	Spring, Stop Lever	1
	141 2 85 19 87000	Spring, Rewind Arm Gear	1
	141 2 85 19 87100	Spring, Click Arm	1
	141 2 85 19 87200	Spring, Eject	1
	141 2 85 19 89500	Spring, Erase Head	1

Ref. No.	Part No.	Description	Q'ty
<b>MECHANISM</b>			
	141 2 85 39 36000	Spring, Cassette Support	1
	141 2 85 39 36100	Spring, R/P Switch	1
	141 2 85 39 36200	Spring, Cassette	1
	141 2 85 39 36500	Spring, F.F.	1
	141 2 85 39 36600	Spring, Counter	1
	141 2 24 19 23100	Veil	1
	141 2 28 99 12700	Adhesive Sheet	1
	141 2 42 19 10601	Screw	1
	141 2 42 19 15400	Screw	2
	141 2 42 19 17201	Screw	4
	141 2 44 69 14502	Cushion	1
	141 2 44 69 32000	Cushion	4
	141 2 45 39 19400	Washer	2
	141 2 45 39 19500	Washer	1
	141 2 75 19 43500	Post	1
<b>GOVERNOR P.C.B. ASSY</b>			
	4 2869 70430	Governor P.C.B. Assy	1
C301	CC4 7 2500 YG00C	Ceramic 0.0047 $\mu$ F 50V	1
C302	CT1 0 630A M00DV	Tantalum 10 $\mu$ F 3V $\pm$ 20%	1
D301	4 2029 71120	Diode, 1S2076	1
TH301	204 5 9000 00200	Thermister, SDT20	1
L301	4 2539 70700	Choke Coil (1 mH)	1
P301	4 2229 73120	Potentiometer (B-200)	1
P302	4 2229 73130	Potentiometer (B-1k)	1
Q301	4 2039 70640	Transistor, 2SC1213	1
Q302	4 2039 70650	Transistor, 2SC1311	1
Q303	4 2039 70660	Transistor, 2SA728A	1
R301	RD1 0 A251 JM000	Carbon 1.0 ohm 1/4W $\pm$ 5%	1
R302	RD1 0 A251 JM000	Carbon 1.0 ohm 1/4W $\pm$ 5%	1
R303	RD5 1 A251 JM000	Carbon 5.1 ohm 1/4W $\pm$ 5%	1
R304	RD4 7 A251 JM000	Carbon 4.7 ohm 1/4W $\pm$ 5%	1
R305	RP5 6 2121 JH000	Pretty 5.6k ohm 1/8W $\pm$ 5%	1
R306	RP5 6 1121 JH000	Pretty 560 ohm 1/8W $\pm$ 5%	1
R307	RS4 7 2620 JT000	Micro 4.7k ohm 1/16W $\pm$ 5%	1
R308	RP1 5 1121 JH000	Pretty 150 ohm 1/8W $\pm$ 5%	1
R309	RP5 6 1121 JH000	Pretty 560 ohm 1/8W $\pm$ 5%	1
R310	RP3 3 1121 JH000	Pretty 330 ohm 1/8W $\pm$ 5%	1
R311	RP3 3 1121 JH000	Pretty 330 ohm 1/8W $\pm$ 5%	1
R312	RP2 0 2121 JH000	Pretty 2.0k ohm 1/8W $\pm$ 5%	1
R313	RP1 0 2121 JH000	Pretty 1k ohm 1/8W $\pm$ 5%	1
R315	RD4 7 A501 JV000	Carbon 4.7 ohm 1/2W $\pm$ 5%	1

- NOTES: 1. Parts order must contain Model Number, Part Number and Description.  
2. Ordering quantity of screws and resistors must be multiple of 10 pcs.

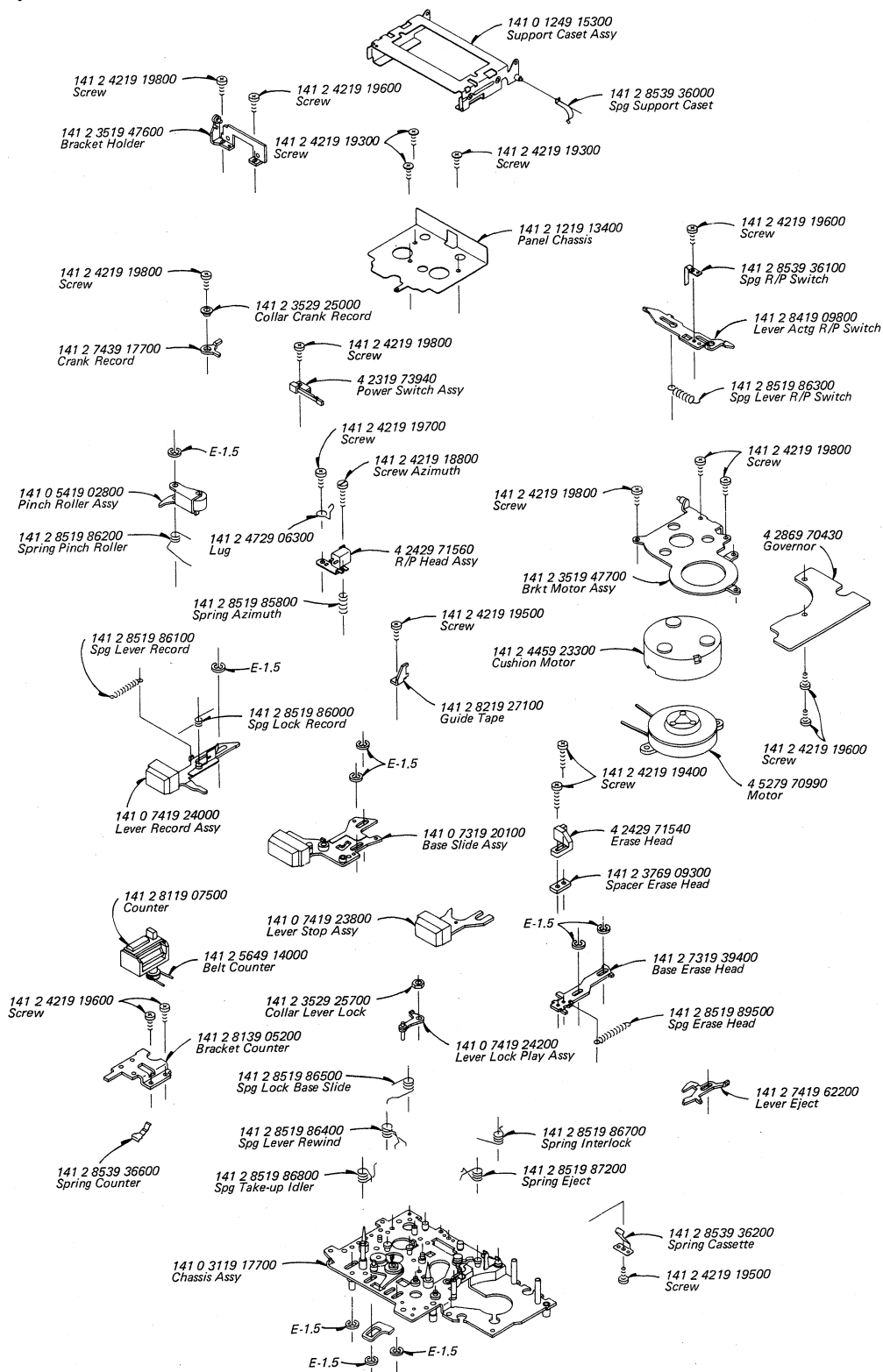
# EXPLODED VIEW

(Cabinet)



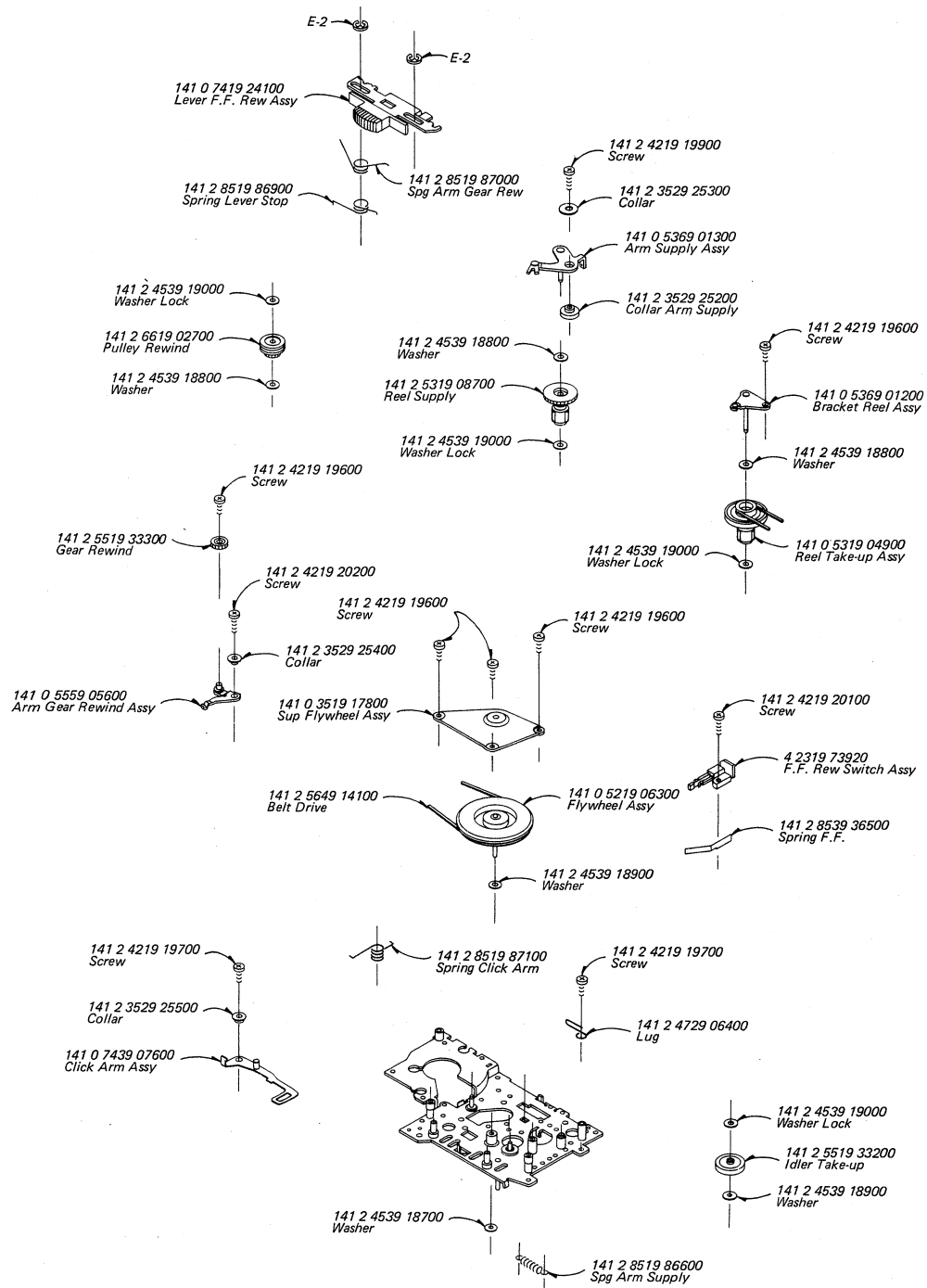
## EXPLODED VIEW (Continued)

**(Chassis Top)**

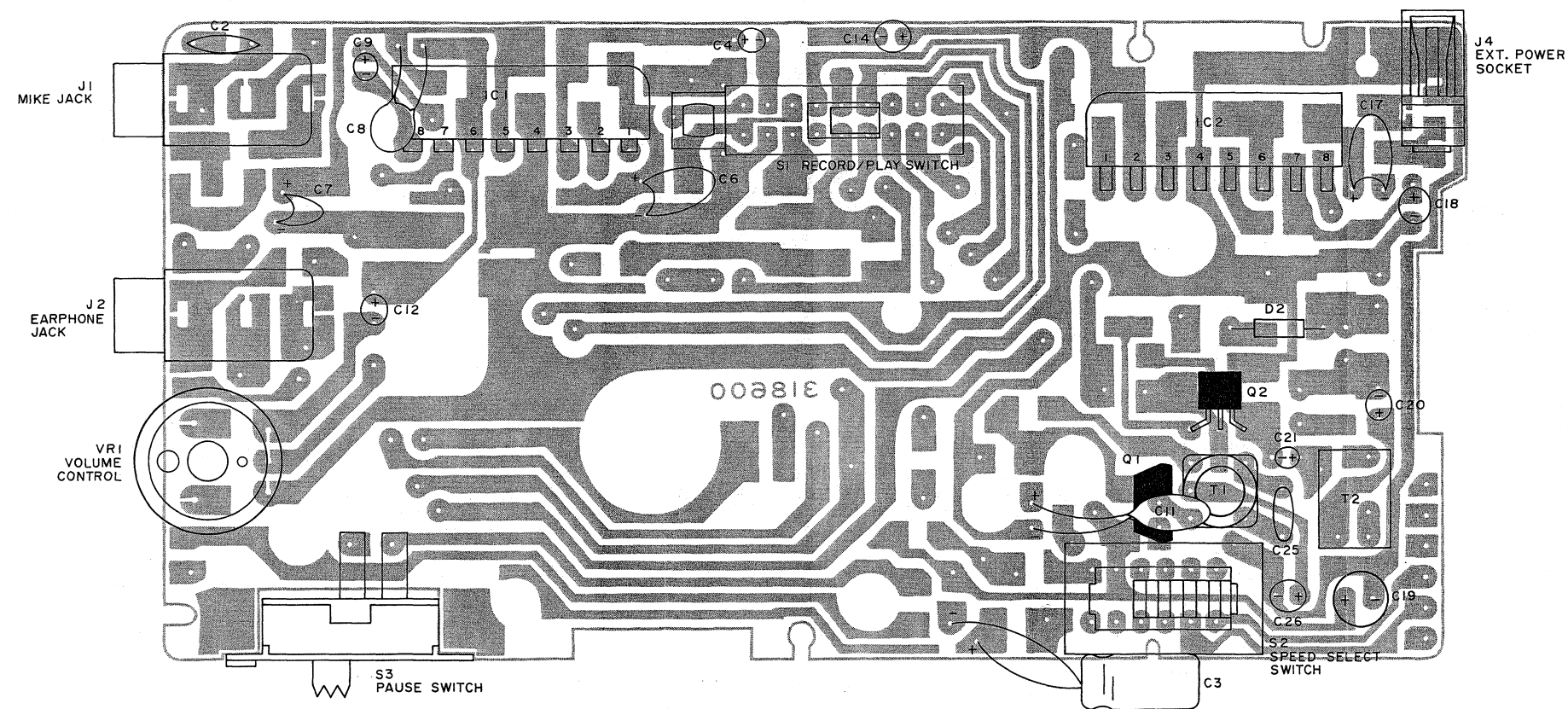


# EXPLODED VIEW (Continued)

(Chassis Bottom)

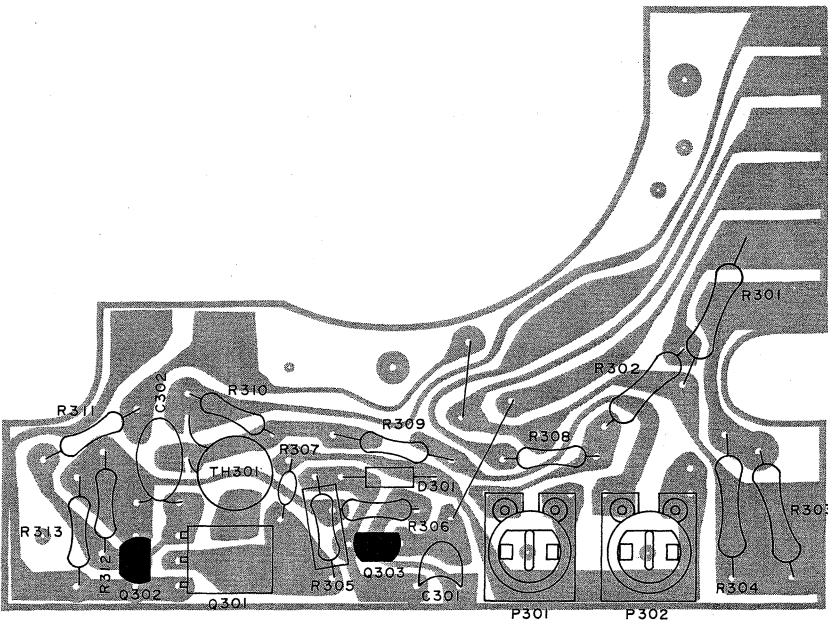


# AMPLIFIER P.C.BOARD(Top View)

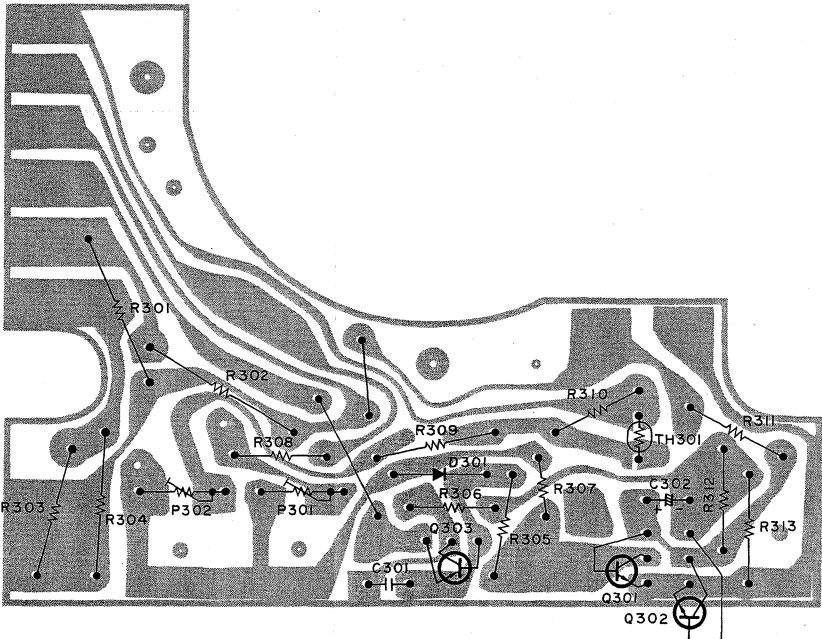


# GOVERNOR P.C.BOARD

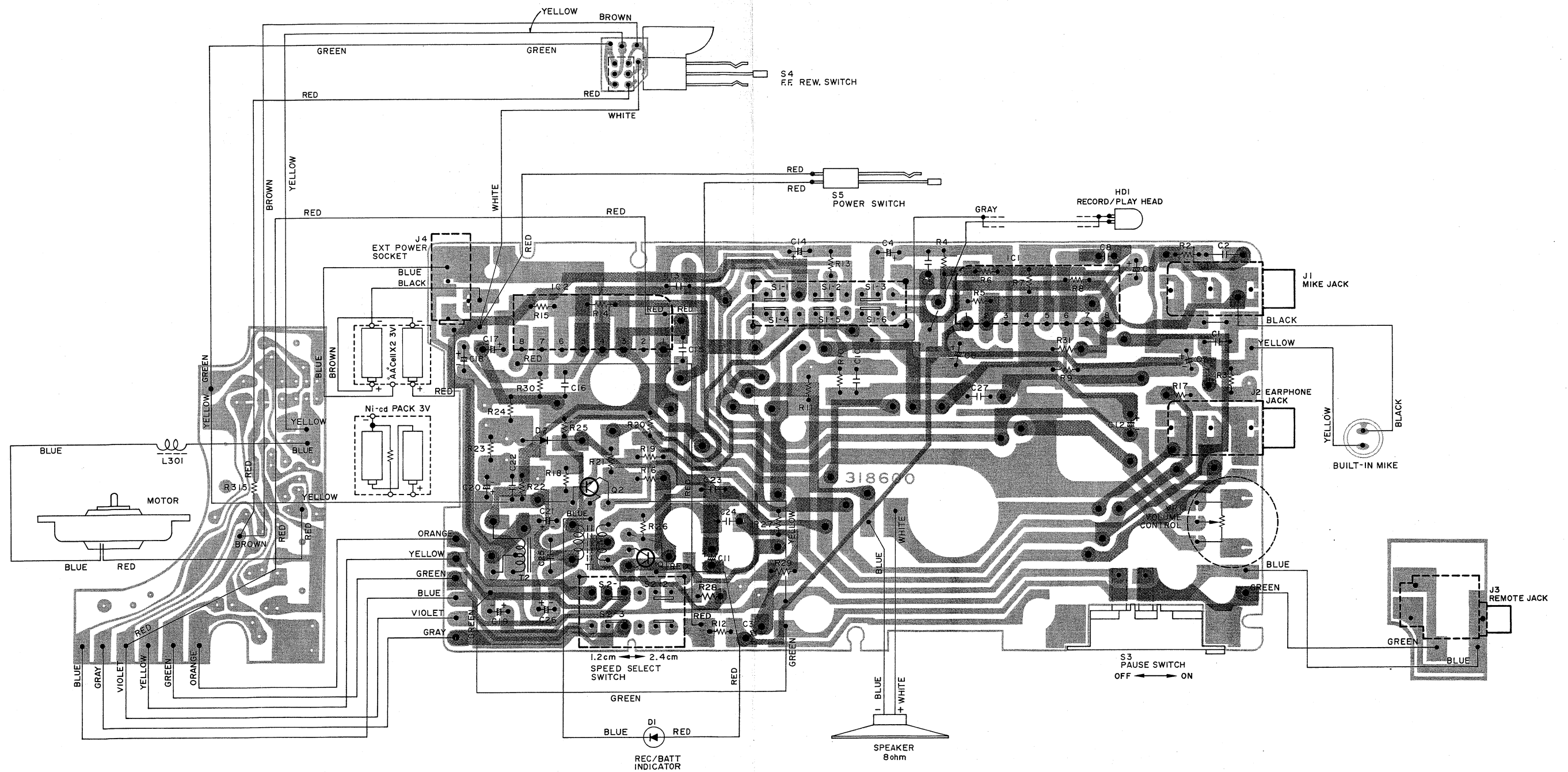
(Top View)



(Bottom View)

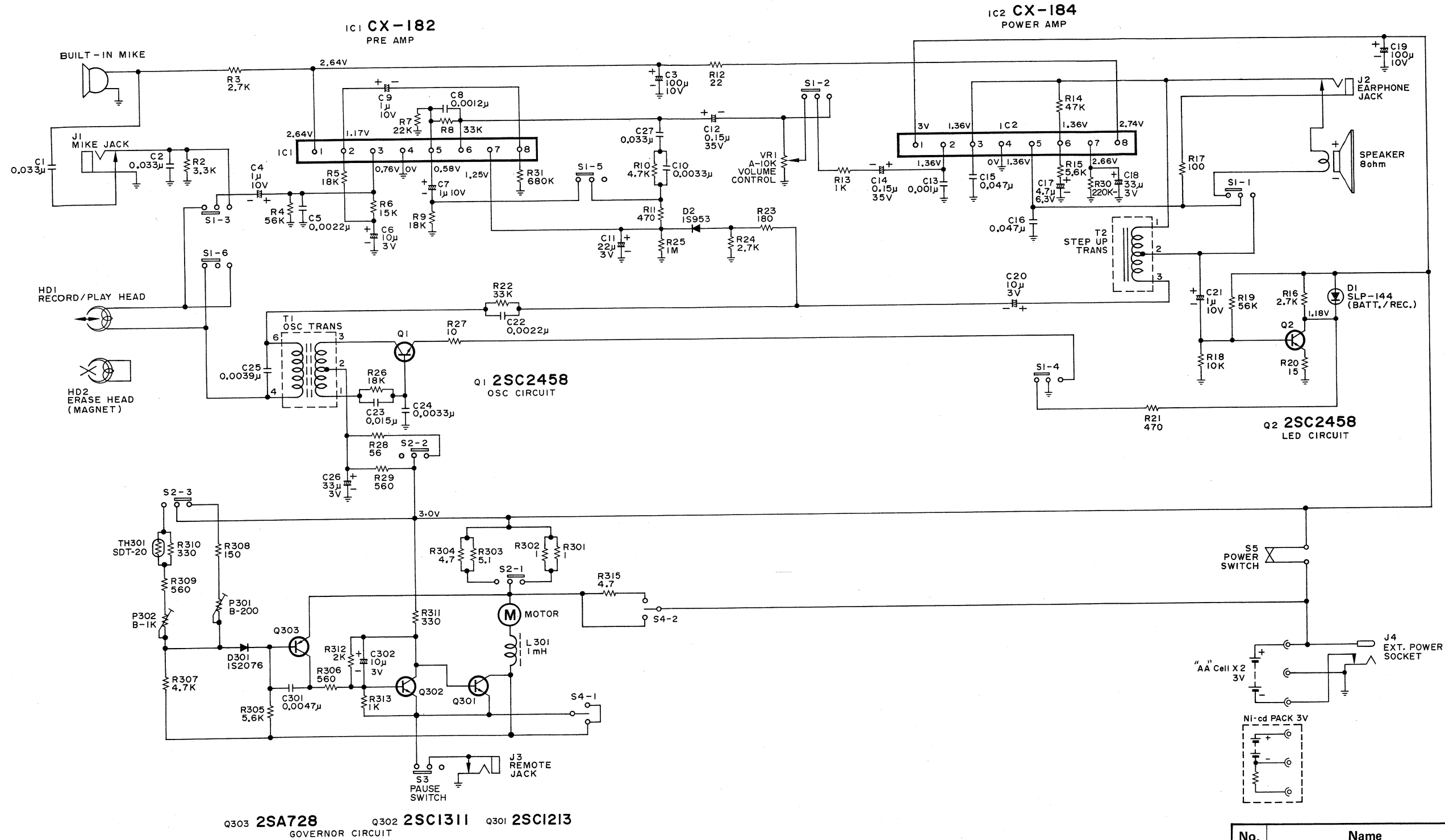


# WIRING DIAGRAM



This circuit subject to change without notice to improve its ability.

# SCHEMATIC DIAGRAM



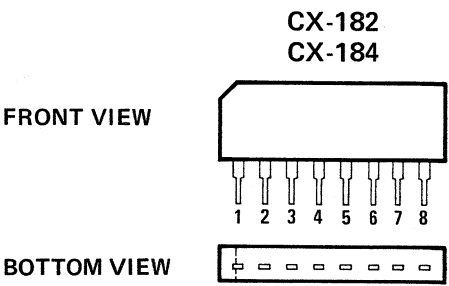
No.	Name	Position
S1	RECORD/PLAYBACK Switch	PLAYBACK
S2	TAPE SPEED Switch	2.4 cm/sec.
S3	PAUSE Switch	OFF
S4	FF/REW Switch	OFF
S5	POWER Switch	OFF

NOTE:  
The described voltages are the values measured with the voltmeter (Internal Resistance: 1M-ohm/V at no-signal) in the playback mode.

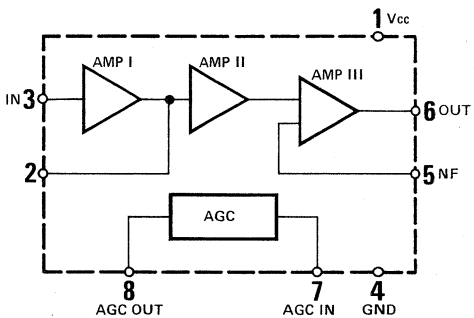
This circuit subject to change without notice to improve its ability.

IC, TRANSISTOR & THYRISTOR IDENTIFICATION

FRONT VIEW	BOTTOM VIEW	TRANSISTOR
		2SA728 2SC1311 2SC2458
		2SC1213
TERMINAL NAME		
B⇒ BASE C⇒ COLLECTOR E⇒ EMITTER		



CX-182 EQUIVALENT CIRCUIT



CX-184 EQUIVALENT CIRCUIT

